

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF PESTICIDE REGULATION
MEDICAL TOXICOLOGY BRANCH

SUMMARY OF TOXICOLOGY DATA
INORGANIC ARSENIC (Oxidation states III and V)
including

Arsenic acid, SB 950 # (none), Tolerance # 00180
Arsenic pentoxide, SB 950 # 519, Tolerance # 50825
Arsenic trioxide, SB 950 # 520, Tolerance # 50823

October 10, 1986
Revised 7/20/87, 5/2/89, 6/05/92

I. DATA GAP STATUS

Chronic rat:	No data gap (human epidemiology and experimental animal data sufficient); recognized adverse effects
Chronic dog:	(As above)
Oncogenicity rat:	(As above)
Oncogenicity mouse:	(As above)
Reproduction mouse:	No data gap, no adverse effects
Teratology mouse:	No data gap, possible adverse effects
Teratology rabbit:	No data gap, no adverse effects
Gene mutation:	No data gap, possible adverse effects ^a
Chromosome:	No data gap, possible adverse effects ^b
DNA damage:	No data gap, possible adverse effects ^b
Neurotoxicity:	No data gap, (human epidemiology and experimental animal data sufficient), recognized adverse effects ^c

^aPoint mutation studies cited by the EPA Position Document No. 2/3 (Creosote, Inorganic Arsenicals, Pentachlorophenol; Jan. 1981, pp. 111-116) identify only As (III) as a point mutagen.

^bChromosomal effects and DNA damage studies cited by the EPA Position Document No. 2/3 (Creosote, Inorganic Arsenicals, Pentachlorophenol; Jan. 1981, pp. 111-116) identify both As(III) and As(V) as positive for both effects.

^cHuman experience indicates neurological effects, most notably "glove and stocking" sensory loss. The effect is relatively well characterized.

Note, Toxicology one-liners are attached: In one-liners below: ** indicates acceptable study, and **Boldface** indicates possible adverse effect

Note that all relevant studies on file as of 5/05/92 were included in the Summary of Toxicology Data. This includes all records up to 112092 (Document 180-022). See next page for details. (This review by Aldous, 6/05/92).